New Devices for Interventional EUS: Forward-viewing Echoendoscope, New Accessories, and New Stents

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Introduction

Recently, several investigators have reported the usefulness of Interventional EUS. Reportedly, although the technical and clinical success rate were high and complication rate was comparatively low, there may be publication bias because almost all studies were retrospective nature. Only few reported had been described as serious or fatal complications. The main reason of this is because there is no dedicated echoendoscope and devices for interventional EUS. In this lecture, we summarized the development of devices of interventional EUS.

New forward-viewing echoendoscope

Current interventional EUS has been performed by using oblique-viewing echoendoscope. Recently, a prototype (or commercially available only in Japan in 2014) forward-viewing echoendoscope (GF-UCT260JAL5, Olympus Medical Systems Tokyo, Japan) was recently developed with an ultrasound field of view almost coaxial to the exit path of the working channel, allowing the use of needles and other devices in a straight position similarly to a gastroscope. Several investigators reported the usefulness of forward-viewing echoendoscope for therapeutic EUS. Since it is obscure whether or not forward-viewing echoendoscope is superior to traditional oblique-viewing echoendoscope, well-designed comparative study may be preferable in the future.

New devices

Guidewire is one of most important device in the interventional EUS because of the life line of devices. Thinner and harder with nice selectability guidewire is optimal because it is inserted into 19-gauge FNA needle. We prefer the “VisiGlide (Olympus)” guidewire for interventional EUS because it is sufficient ability.

Not new but recently several investigators reported the usefulness of 6F cautery dilator (Cyst-Gasrto, EndoFlex, Germany) for tract dilation.

In terms of stent, recently several metal stents has emerged for EUS-guided hepaticogastrostomy (Giobor, Niti-S, Taewoong Company, Korea, Hanaro, MI Tech, Korea), EUS-guided choledochoduodenostomy (AXIOS, Xlumena, USA), EUS-guided gallbladder drainage (Hanaro, MI Tech, AXIOS, Xlumena, SPAXUS, Niti-S, etc.).
Taewoong), and EUS-guided peripancreatic fluid collection drainage (Hanaro, MI Tech, AXIOS, Xlumena, SPAXUS, Taewoong).

**Conclusion**

Dedicated devices for interventional EUS will lead to safe and reliable procedures in this field.

**References**